

ABSTRACT OF THE DISCLOSURE  
VIA AP SWITCHING

A magnetic storage structure comprises a first magnetic layer; a second magnetic layer; and a nonmagnetic spacer layer disposed between the first and second layers for coupling the first and second layers to be parallel in a zero field condition. According to another embodiment of the invention a magnetic memory cell exhibits a hysteresis loop wherein in small fields the thin layer switches, reversibly, leaving the layers coupled anti parallel. At larger fields the thick layer switches making the layers parallel. According to yet another embodiment of the invention, a magnetic memory structure comprises two magnetic layers wherein the layers are magnetically coupled in a substantially parallel mode in zero field, and switches via the anti parallel state.